



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,734	03/06/2002	Takeki Shirai	101160-00021	5392

4372 7590 03/02/2006

ARENT FOX PLLC
1050 CONNECTICUT AVENUE, N.W.
SUITE 400
WASHINGTON, DC 20036

EXAMINER

HANNON, THOMAS R

ART UNIT	PAPER NUMBER
----------	--------------

3682

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/090,734	SHIRAI ET AL.	
	Examiner	Art Unit	
	Thomas R. Hannon	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/142,139.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3682

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 10-16 depend from canceled claim 1. In determining patentability based on prior art it will be presumed that claims 10, and 12-16 depend from claim 9.

Claim 14 lacks a proper antecedent for "the spherical seats".

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9, 12-17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Teramachi (Japan 05052215).

Claims 9, 12-17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Jacob (U.S. Patent No. 5,156,462).

Claims 9, 12-17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Jacob (U.S. Patent No. 4,944,607).

Claims 9, 12-17, 19, and 20 are rejected under 35 U.S.C. 102(a) as being anticipated by Teramachi et al. (U.S. Pat. No. 5,755,516). Note column 12, lines 35-45, and Figure 7b.

Art Unit: 3682

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 10, 11, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teramachi, Japan '215 as applied to claims 9 and 17 above, and further in view of Lunz (WO 92/14070). Lunz discloses a linear guide chain for rollers, having a plurality of holding members (31) arranged among the rollers contiguous to each other for rotatably holding the rollers, and a connecting portion (30) made of metal (as seen in Figures 9 and 10) for connecting the holding members. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the connecting portions of the ball chain of Teramachi '215 such that it is formed of metal, because this is taught and suggested by Lunz as providing a rolling element cage having reinforcement, resulting in increased performance and long useful life. With respect to claim 11, the choice of metal would have been obvious to one of ordinary skill in the art, dependent of the particular properties desired.

Claims 10, 11, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacob (U.S. Patent No. 5,156,462) as applied to claims 9 and 17 above, and further in view of Lunz (WO 92/14070). Lunz discloses a linear guide chain for rollers, having a plurality of holding members (31) arranged among the rollers contiguous to each other for rotatably holding the rollers, and a connecting portion (30) made of metal (as seen in Figures 9 and 10) for connecting the holding members. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the connecting portions of the ball chain of Jacob '462 such that it is formed of metal, because this is taught and suggested by Lunz as providing a rolling element cage having reinforcement, resulting in increased performance and long useful life. With respect to claim 11, the choice of metal would have been obvious to one of ordinary skill in the art, dependent of the particular properties desired.

Claims 10, 11, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacob (U.S. Patent No. 4,944,607) as applied to claims 9 and 17 above, and further in view of Lunz (WO 92/14070). Lunz discloses a linear guide chain for rollers, having a plurality of holding members (31) arranged among the rollers contiguous to each other for rotatably holding the rollers, and a connecting portion (30) made of metal (as seen in Figures 9 and 10) for connecting the holding members. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the connecting portions of the ball chain of Jacob '607 such that it is formed of metal, because this is taught and suggested by Lunz as providing a rolling element cage having reinforcement, resulting in increased performance and long useful life. With respect to claim 11, the choice of metal would have been obvious to one of ordinary skill in the art, dependent of the particular properties desired.

Art Unit: 3682

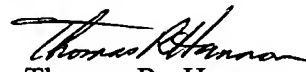
Claims 10, 11, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teramachi et al. (U.S. Pat. No. 5,755,516) as applied to claims 9 and 17 above, and further in view of Lunz (WO 92/14070). Lunz discloses a linear guide chain for rollers, having a plurality of holding members (31) arranged among the rollers contiguous to each other for rotatably holding the rollers, and a connecting portion (30) made of metal (as seen in Figures 9 and 10) for connecting the holding members. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the connecting portions of the ball chain of Teramachi '516 such that it is formed of metal, because this is taught and suggested by Lunz as providing a rolling element cage having reinforcement, resulting in increased performance and long useful life. With respect to claim 11, the choice of metal would have been obvious to one of ordinary skill in the art, dependent of the particular properties desired.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas R. Hannon whose telephone number is (571) 272-7104. The examiner can normally be reached on Monday-Thursday (8:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3682

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Thomas R. Hannon
Primary Examiner
Art Unit 3682

trh